

REMARKS

Except as expressly discussed below, any changes made to the Application, including the claims, are not made in reply to any rejection or other communication from the Examiner, but are made to improve the clarity, readability, or understanding of the application or a portion of the application that was changed. As is evident, none of the foregoing amendments was made to add new matter, and none was made to narrow the scope of the claims. Indeed, all amendments were made merely as cosmetic amendments to improve the readability and coherence of the resulting patent.

10 **Status of Prosecution**
Applicants filed the original application on February 1, 2002. The Examiner mailed a first, non-final office action on August 1, 2003. This paper is in Reply to that office action. Applicants request reconsideration and withdrawal of the rejections raised in that office action.

15 **Examiner's General Objections and Rejections**
Claims 1-46 are pending.
Following a detailed review of the Application in anticipation of a Notice of Allowability, Applicants voluntarily have amended portions of the specification to enhance clarity of the issued patent.

20 In the Office Action, the Examiner rejected claims 1-7, 9, 12-13, 17-19, 21-23, 25-33, 40-43, 45, and 46; objected to claims 8, 10-11, 14-16, 20, 24, and 34-39; and allowed dependent claim 44.

25 On page 7 of the Office Action, the Examiner stated that claims 8, 10-11, 14-16, 20, 24, and 34-39 were objected to, but would be allowable if rewritten in independent form. Applicants are appreciative of the Examiner's indication of allowance, but believe that in connection with certain independent claim sets, Applicants are entitled to a broader scope of coverage. Applicants, therefore, have amended certain claims as shown in this paper.

On page 2 of the Office Action, the Examiner rejected claims 40 and 41 under 35 U.S.C. §112, second paragraph. In Reply, Applicants amended those dependent claims to overcome a typographical error, i.e., to change the antecedent reference from claim "29" to claim "39."

On pages 2-7 of the Office Action, the Examiner rejected claims 1-7, 9, 12-13, 17-19, 21-23, 25-33, 40-43, 45, and 46 under 35 U.S.C. §103, arguments that Applicants respectfully traverse.

Applicants respectfully urge, therefore, that the objections and rejections of the Examiner
5 be withdrawn.

Rejections under 35 U.S.C. §103(a)

Beginning on page 2 of the Office Action, the Examiner rejected claims 1-5, 17-19, 21-23, 25-33, 40-43, 45, and 46 under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 5,524,968 to Stoltz in view of U.S. Patent No. 4,784,436 to Sutherland.

10 Beginning on page 5 of the Office Action, the Examiner rejected claims 6, 7, 9, 12 and 13 under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 5,524,968 to Stoltz (“Stoltz Patent”) in view of U.S. Patent No. 4,784,436 to Sutherland (“Sutherland Patent”), and in further view of U.S. Patent No. 5,816,556 to Liao (“Liao Patent”).

15 Applicants submits, however, that the differences between the subject matter sought to be patented, and the references cited by the Examiner, are not such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains.

20 More specifically, Applicants assert that the Office Action does not state a *prima facie* case of obviousness under 35 U.S.C. §103. Neither the combination of the Stoltz Patent with the Sutherland Patent, nor the combination of the Stoltz Patent with both the Sutherland Patent and Liao Patent, supply the deficiencies of the Stoltz Patent, also referred to in this paper as the “Primary Reference.”

Independent Claim Set 1-16

As regards independent claim set 1 (claims 1-16), the Examiner states that the Primary
25 Reference includes a “cage (10) as seen in Figure 3.” See Office Action, page 2. What is claimed in independent claim 1 is not a “cage,” but a “ribbed cage.” See Application, Claims, page 15, lines 4-10. The term “ribbed cage” is defined in the specification of the Application: the “adjustable chair...includes a plurality of tines. The tines are formed into a ribbed cage.” See page 4, lines 19-21. The Primary Reference neither discloses nor suggests a ribbed cage as
30 claimed and defined by Applicants. In fact, reference numeral 10 of the Primary Reference, as

shown in Figure 3, and as identified in the Primary Reference at col. 2, ll. 27, is a “chair with a restraining belt and buckle 11....”

As provided in MPEP §2173.05(a), “When the specification states the meaning that a term in the claim is intended to have, the claim is examined using that meaning, in order to achieve a complete exploration of the applicant’s invention and its relation to the prior art,” citing *In re Zletz*, 893 F.2d 319, 13 USPQ2d 1320 (Fed. Cir., 1989). This rule is consistent, of course, with the fundamental rule that Applicants are their own lexicographers. MPEP §2173.01.

In independent claim 1, Applicants claim a “multiply positionable coupler.” The Examiner asserts that the Primary Reference includes a “multiply positionable coupler (27) [that is] removably connectable to the cage.” See Office Action, pages 2-3.

Applicants respectfully disagree. In fact, the Primary Reference neither discloses nor suggests a multiply positionable coupler. Applicants (a) defined and described the multiply positionable coupler in Figure 6 of the drawing figures; (b) expressly labeled Figure 6 to indicate the components of the “Multiply Positionable Coupler (34)”; (c) expressly stated at least one of the advantages of the multiply positionable coupler is that it permits rotation clockwise and counter-clockwise around the Principal Longitudinal Axis (see Application, page 4, lines 8-10); and (d) devoted almost four pages of the specification to defining and describing the multiply positionable coupler (see Application, beginning on page 8, line 26, and extending to page 12, line 11).

Element 27 in the Primary Reference neither discloses nor suggests a multiply positionable coupler as defined, described, and claimed in the Application. In fact, element 27 of the Primary Reference is no more than a “tripod unit comprising three legs (27)....” See Primary Reference, col. 2, ll. 19-21. As shown in Figure 6 of the Application, and as defined in the specification, multiply positionable coupler includes no tripod, no legs. Rather, it includes at least the support assembly 36 and the carriage device 100.

As noted above, Applicants again state that they have defined and described the term “multiply positionable coupler” in the specification, are entitled to the benefit of that definition.

As regards dependent claims 5, the Examiner further states, concerning dependent claim 5 of the Application, “the multiply positionable coupler includes a support assembly formed with

a first tube (23).” As already indicated, the Examiner’s predicate assertion is incorrect; the Primary Reference does not disclose a multiply positionable coupler, and certainly does not disclose a first tube as disclosed by Applicants.

Applicants, therefore, respectfully submit that they have overcome the rejections of the
5 Examiner in connection with independent claim set 1-16, and that the Examiner accordingly should issue a notice of allowability.

Independent Claim Set 17-28

Concerning independent claim 17, the Examiner further argues that the Primary Reference shows or claims a support assembly as disclosed and claimed by Applicants. See
10 Office Action, page 3. In fact, the Primary Reference does not do so. The Examiner has not identified in the Primary Reference any structural components that co-operate in operation as described and claimed in the Application. As defined by Applicants, and as shown by a legend label in Figure 6, the support assembly:

15includes a first tube and a plurality of arms pivotally connected to both the support assembly and to the plurality of tines. In addition, the support assembly includes an upper collar mountable by slidably engaging the upper collar on the first tube. The upper collar also is rotatably engageable with the first tube. A first retaining ring is connected to one end of the first tube for preventing disengagement of the support assembly from the first tube, and a second retaining ring engageable with the first tube. The support assembly also includes a plurality of arms that are pivotally connected both to the support assembly and to the plurality of tines. In addition, the support assembly includes a lower collar that is slidably engageable with the first tube for positioning the tines. A guide extension also is formed in the lower collar that is slidably engageable with the first tube for distributing rotational, compressive and translational forces along the first tube to facilitate self-alignment during movement of the lower collar.
20
25 The support assembly also includes means for movably connecting the plurality of legs to the support assembly.

See Application, page 4, lines 22-30, and page 5, lines 1-11.

30 The Examiner suggests that such a support assembly is shown in the Primary Reference. See Office Action, page 3, unnumbered line 9. But no component in the Primary Reference is identified either singly, or collectively, as being the support assembly, and no elements are identified that would make such a support assembly “pivotally connectable to the plurality of tines,” as claimed by Applicants. See Application, Claim 17, page 17, lines 17-25.

The Examiner also seems to suggest that the Primary Reference shows a carriage device as described and claimed by Applicants. See Office Action, page 3, unnumbered line 8. Again, however, no component in the Primary Reference is identified either singly, or collectively, as being the carriage device. The Examiner states only that a carriage devices is shown in Figure 1 of 5 the Primary Reference. Thus, the Examiner states: "Regarding claim 17, a support assembly...is pivotally connectable to the plurality of tines." See Office Action, page 3, unnumbered lines 8-9. However, no "plurality of tines" is shown in the Primary References as defined and disclosed by Applicants. The Examiner also states: "A carriage device, with a plurality of legs pivotally attached, is slidably and rotationally positionable on the first tube of the support assembly as seen 10 in Figure 1." See Office Action, page 3, unnumbered lines 9-11. Again, however, Applicants infer that the only devices shown in Figure 1 of the Primary Reference "with a plurality of legs pivotally attached," may be two components of the tripod unit (27) that are not assigned reference numerals, i.e., a doughnut shaped ring to which the upper ends of the legs of the tripod are connected, or perhaps a sleeve on one of the three legs comprising the tripod. However, neither 15 of those components are the carriage device described and defined in the Application, and shown with particularity as element and reference number 100 in Figure 6 of the Application. The carriage device in the Application "includes a second tube slidably engageable with the first tube. A fixed collar is included. The fixed collar is attached to one end of the second tube for movably connecting the plurality of legs and for restraining movement of the support assembly. The 20 carriage device also includes means for positioning and repositioning the plurality of legs." See Application, page 5, lines 12-19. As a minimum, the Primary Reference does not disclose a second tube, and certainly does not disclose the co-operation of a carriage claimed in the Application with a support assembly.

The Sutherland Patent

25 On page 4 of the Office Action, the Examiner argues:

Stoltz shows all of the teachings of the claimed invention but fails to show the use of a ribbed cage and a support member. Sutherland discloses a ribbed cage (22, 40, 16) and a support member (50, 48) that is removably engageable with the ribbed cage as seen in Figures 1 and 2. Regarding claim 2, the ribbed cage 30 includes a plurality of tines or ribs (22)....

Applicants have shown in the above analyses, however, that the Stoltz Patent (Primary Reference) does not teach the claimed invention.

In addition, the Sutherland Patent (“Secondary Reference”) does not disclose a ribbed cage. As indicated in the above analyses, the term “ribbed cage” is defined in the specification of the Application as including a plurality of tines. “The tines are formed into a ribbed cage.” See page 4, lines 19-21. The Secondary Reference neither discloses nor suggests a ribbed cage as claimed and defined by Applicants. Further, the Secondary Reference neither discloses nor suggests the support assembly claimed by Applicants in claim 17: see discussion begging above, page 16, line 24. Reference numerals 50 and 48 of the Secondary Reference identify respectively fabric back panel and a fabric seat panel. See Sutherland Patent, col. 2, ll. 66, and col. 3, ll. 12. The support assembly 36 in independent claim 36 of the Application is structurally shown in Figure 6. Further, support assembly 36 is pivotally connected to the plurality of tines, as stated in the specification, page 4, line 28. However, neither fabric back panel 50 nor fabric seat panel 48 are pivotally connected to anything resembling the tines shown and claimed in the Application.

Applicants respectfully urge, therefore, that the Secondary Reference is no more germane to the Application than the Primary Reference, and request the Examiner to withdraw the rejections.

Reply to “Obvious to Modify” Argument

On page 5 of the Office Action the Examiner makes two arguments with which The Examiner asserts (1) that “It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the cage of Stoltz with the ribbed cage and engaging support member, as shown by Sutherland, in order to provide ease of disassembly for the occupant of the chair;” and (2) “It would have been obvious, if not inherent, to one having ordinary skill in the pertinent art at the time of the invention to use the chair as disclosed by the combination of Stoltz in view of Sutherland.”

On page 7 of the Office Action the Examiner argues that “It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the tube of Stoltz in view of Sutherland with the an (sic, an) upper and lower collar, as shown by Liao....”

Applicants respectfully disagree.

As succinctly stated in the Manual of Patent Examining Procedure (“MPEP”), to establish a *prima facie* case of obviousness three basic criteria must be satisfied: (1) a suggestion or motivation to modify the cited reference or to combine the teachings in the cited references; 5 (2) a reasonable expectation of success; and (3) the cited references must teach or suggest all the claim limitations. See MPEP §706.02(j). The cited reference “must expressly or impliedly suggest the claimed invention....” Applicants, however, have shown that the Examiner has not established a *prima facie* case of obviousness because it is clear that neither the Primary Reference nor the Secondary Reference expressly or impliedly suggest the claimed invention.

10 Also, a *prima facie* case cannot be established by modifying the principle of operation of the references. See MPEP §2143.01. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. As shown by Applicants, combining either the Primary and Secondary references with the other would 15 necessitate a change in the principle of operation of either such other reference. The example provided in MPEP §2143.01 supports Applicants’ position. In that example, the reference required rigidity for operation, whereas the claimed invention required resiliency. In that case, the Court reversed the rejection stating that the “suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary 20 reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate.” The same situation clearly applies to the references cited by the Examiner. Thus, it is respectfully submitted that modifying either of the references in view of the other is improper as provided in MPEP §2143.01.

Further, the Board of Patent Appeals and Interferences (“Board”), since the decision of *In 25 re Sang-su Lee*, 277 F.3d at 1344, 61 USPQ2d at 1434-1435 (CAFC, 2002), has held several times that a *prima facie* case is not made by holding claims unpatentable for obviousness based solely on conclusory statements about what is “common knowledge” or “well known” in the art, without objective evidence in support of that knowledge.

The Liao Patent

On page 5 of the Office Action, the Examiner states that claims 6, 7, 9, 12, and 13 – all of which are dependent claims – are unpatentable over Stoltz in view of Sutherland and in further view of Liao. According to the Examiner, “an upper collar (24) is slidably engageable with a first tube (11) as seen in Figure 3.” See Office Action, page 6.

Figure 3 shows no component referenced by number 24. Given the unusual numbering system in the Liao Patent – ranging from number 10 to over 500, it is understandable that there is no upper collar (24).

Further, the Primary Reference does not show or suggest what is shown and claimed in the Application. Therefore, the claims rejected by the Examiner are not obvious from the Primary or Secondary References, singly or in combination, and for at least that reason, all claims should be allowed. Claims that depend from those claims are allowable for at least the same reasons that support allowability of independent claims.

Summary

As shown above, the Primary Reference does not show or suggest what is disclosed and claimed in the Application. Therefore, the rejected claims are not obvious from the references, singly or in combination, and for at least that reason, the rejected claims should be allowed. As stated, claims that depend from claims are allowable for at least the same reasons that support allowability of independent claims.

Although Applicants believe that the amendments clearly distinguish the present invention over the references, should the Examiner have any other proposed claim language, Applicants would certainly welcome such suggestions.

Teaching Applicable to Rejections Under 35 U.S.C. §103

As indicated, to establish a *prima facie* case of obviousness three basic criteria must be satisfied: (1) a suggestion or motivation to modify the cited reference or to combine the teachings in the cited references; (2) a reasonable expectation of success; and (3) the cited references must teach or suggest all the claim limitations. See MPEP §706.02(j). The cited reference “must expressly or impliedly suggest the claimed invention....”

There has been no showing that any reference cited by the Examiner includes a suggestion or motivation to achieve what Applicants have claimed; there is now showing of any expectation of success; and none of the references teach or suggest all the claim limitations.

The MPEP summarizes the progression of requirements imposed on prosecution practice by decisions of the Court of Appeals, Federal Circuit, a progression of decisions beginning with *In re Fine* and extending through *In re Fitch*. Briefly, the Court held in *In re Fine* that “[b]efore the PTO may combine the disclosures of two or more prior art references in order to establish *prima facie* obviousness, there must be some suggestion for doing so....” *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598-99 (Fed. Cir. 1988). Further, the same prior art must “provide one of ordinary skill in the art the motivation to make the...modifications....” *In re Fine*, at 1944, emphasis added. The Federal Circuit has held that the requirement that any modification suggested by the Examiner is not obvious unless the prior art suggests the desirability for the modification. *In re Fitch*, 922 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992).

The Examiner has not established a *prima facie* showing that the Primary or Secondary References provide a motivation to make the modifications claimed by the Examiner. No showing has been made that those References suggest the desirability of the modification.

Furthermore, the key to proper determination of the differences between a reference cited by the Examiner, and the invention, is giving full recognition to the invention “as a whole.” The Commissioner is not permitted to ignore the results and advantages produced by claimed subject matter as a whole simply because a claim limitation is similar to that in another reference. See, for example, *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 7 USPQ2d 1315 (Fed. Cir. 1988). To consider the subject matter of the invention “as a whole” requires taking account of all of the limitations of a claim; it is not appropriate to focus a §103 inquiry on a particular limitation of the invention. See *Carl Schenck, A.G. v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983).

Also, a *prima facie* case cannot be established by modifying the principle of operation of the references. See MPEP §2143.01. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.

Clearly, an argument that the Primary nor Secondary references teach, for example, a multiply positionable coupler, would necessitate a change in the principle of operation of either Reference. The example provided in MPEP §2143.01 supports Applicants' position. In that example, the reference required rigidity for operation, whereas the claimed invention required 5 resiliency. In that case, the Court reversed the rejection stating that the "suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate." The same situation clearly applies to the references cited by the Examiner. Thus, it is respectfully submitted that modifying either of the 10 references in view of the other is improper as provided in MPEP §2143.01.

Recent Federal Circuit decisions have amplified the Patent Office's burden of proof and standards for establishing obviousness under §103. The first decision is *In re Debiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999); the second is *Ecolochem, Inc. v. Southern California Edison Company*, Fed. Cir. No. 99-1043, September 7, 2000; the third is *In re Sangsu Lee*, 277 F.3d at 1344, 61 USPQ2d at 1434-1435 (CAFC, 2002). These cases are a remind us 15 that obviousness must be viewed not retrospectively, but solely "at the time the invention was made." *In re Debiczak*, 50 USPQ2d 1614 at 1617, citing 35 U.S.C. §103. As the Federal Circuit held:

Measuring a claimed invention against the standard established by section 103 20 requires the oft-difficult but critical step of casting the mind back to the time of the invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field...Close adherence to this methodology is especially important in the case of less technologically complex inventions, where the very ease with which the invention 25 can be understood may prompt one to "fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against the teacher."

In re Debiczak, 50 USPQ2d 1614 at 1617.

30 In addition to reminding that retrospective findings of obviousness are impermissible, the cases also require proof, actual evidence, to support an obviousness rejection. The Federal Circuit emphasized that evidence must support the assertion of a suggestion, teaching, or motivation; if there is no evidence of such a suggestion, teaching, or motivation, it is

inappropriate to "make the inventor's disclosure a blueprint for piecing together the prior art to defeat patentability -- the essence of hindsight. Broad conclusory statements regarding the teaching of multiple references, standing alone, are not "evidence." *In re Debiczak*, 50 USPQ2d 1614 at 1617 (emphasis added).

5 The evidence, in other words, must show a "skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed." *Ecolochem, Inc. v. Southern California Edison Company*, at page 11, quoting *In re Rouffet*, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998). The Court also emphasized the proof standard by
10 confirming that "[A] rejection cannot be predicated on the mere identification...of individual components of claimed inventions. Rather, particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed." *Ecolochem, Inc. v. Southern California Edison Company*, at page 11, quoting *In re Werner Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 15 1313, 1317 (Fed. Cir. 2000).

The Federal Circuit went on to explain in *In re Sang-su Lee* that the Board of Patent Appeals and Interferences ("Board") was incorrect in asserting that "it was not necessary to present a source of teaching, suggestion, or motivation to combine...references to their teachings," and that it is equally incorrect to assert that a "conclusion of obviousness may be
20 made from common knowledge and common sense of a person of ordinary skill in the art without any specific hint or suggestion in a particular reference." *In re Sang-su Lee*, page 3. Not only were those assertions incorrect, said the Court, the obverse is equally true: "it is fundamental that rejections under 35 U.S.C. §103 must be based on evidence comprehended by the language of that section." *In re Sang-su Lee*, page 3. "The factual inquiry whether to
25 combine references must be thorough and searching." *In re Sang-su Lee*, page 4, citing *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52, 60 USPQ2d 101 (Fed. Cir. 2001). In summary, observed the Court, the "need for specificity pervades this authority," referring to the cases just discussed. *In re Sang-su Lee*, page 6.

Conclusions

For the reasons set forth above, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-7, 9, 12-13, 17-19, 21-23, 25-33, 40-43, 45, and 46.

The remaining references cited by the Examiner, but not relied on for the rejection of 5 claims 1-7, 9, 12-13, 17-19, 21-23, 25-33, 40-43, 45, and 46, have been noted. Because the remaining references are no more pertinent than the applied references, a detailed discussion of these remaining references is deemed unnecessary for a full and complete Reply to the Office Action.

In conclusion, Applicants respectfully assert that this Reply is complete as contemplated 10 in 37 CFR §1.111, that claims are patentable for the reasons set forth above, and that the Application is now in condition for allowance. Accordingly, Applicants respectfully request an early notice of allowance. The Examiner is requested to call the undersigned at (505) 897-7200 for any reason that would advance the instant application to issue.

15 Respectfully submitted,

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